

**In the Claims:**

Please cancel claims 1 to 4 without prejudice and add the following claims 5 to 13:

- B3**
5. A pharmaceutical composition for treating hyperinsulinemia, said pharmaceutical composition containing at least one solid or liquid carrier or at least one diluent and a pharmaceutically effective amount of at least one compound for inhibiting insulin release, wherein said at least one compound for inhibiting said insulin release acts to inhibit said insulin release by interacting with a melatonin-specific receptor in  $\beta$ -cells of pancreatic islets in a living being suffering from said hyperinsulinemia.
6. The pharmaceutical composition as defined in claim 5, wherein said at least one compound is melatonin.
7. The pharmaceutical composition as defined in claim 5, in the form of a coated or uncoated tablet containing from 0.01 to 200 mg of said at least one compound or a capsule containing from 0.01 to 200 mg of said at least one compound.
8. The pharmaceutical composition as defined in claim 5, in the form of an adhesive tape, a gel, a cream, an ointment, an ampule, a subcutaneous implant or a buccally administered device, for transdermally releasing from 0.01 to 200

mg of said at least one compound.

B3  
Cont.  
Cont  
C1

9. A method of treating hyperinsulinemia, said method comprising administering a pharmaceutically effective amount of at least one compound for inhibiting insulin release to a living being suffering from said hyperinsulinemia, wherein said at least one compound acts to inhibit said insulin release by interacting with a melatonin-specific receptor in  $\beta$ -cells of pancreatic islets in said living being suffering from said hyperinsulinemia.

10. The method as defined in claim 9, wherein said at least one compound consists of melatonin.

11. The method as defined in claim 9, wherein said pharmaceutically effective amount of said at least one compound is from 0.01 to 200 mg.

12. The method as defined in claim 9, wherein said administering to said living being is oral or parenteral.

13. The method as defined in claim 9, wherein said administering to said living being is topical, rectal, subcutaneous, intravenous, intramuscular, intraperitoneal, intranasal, intravaginal, intrabuccal or sublingual.